

/ (CONTRACTOR)

/ (PROJECT)

CONSTRUCTION MANAGER AT RISK
DESIGN PHASE SERVICES

EXHIBIT "A"

I- GENERAL SCOPE OF SERVICES

Project Meetings: The CM@Risk will attend Project Team meetings including, but not limited to, monthly Project management meetings, Project workshops, special Project meetings, Construction Documents rolling reviews and partnering sessions.

The CM@Risk will provide design phase services, described herein, in a proactive manner and consistent with the intent of the most current Drawings and Specifications. The CM@Risk will promptly notify the City in writing whenever the CM@Risk determines that any Drawings or Specifications are inappropriate for the Project and/or cause changes in the Scope of Work requiring an adjustment in the Cost Model, Project Schedule, GMP Proposals and/or in the Contract Time for the Work.

The CM@Risk when requested by the City or at its own initiative, if sanctioned by the City, will attend, make presentations and participate as may be appropriate in public agency and or community meetings relevant to the Project. The CM@Risk will provide drawings, schedule diagrams, budget charts and other materials describing the Project when their use is required or appropriate in any public agency meetings.

II- CONSTRUCTION MANAGEMENT PLAN

The CM@Risk will prepare a Construction Management Plan (CMP) which will detail but not necessarily be limited to the CM@Risk's determination concerning: (1) Project milestone dates and the Project Schedule including the broad sequencing of the design and construction of the Project; (2) alternate strategies for fast-tracking and/or phasing the construction; (3) the number of separate subagreements to be awarded to subcontractors and suppliers for the Project construction; (4) permitting strategy; (5) safety and training programs; (6) construction quality control; (7) a commissioning program, plant start-up and training; (8) the Cost Model and basis of the model; and (9) a matrix summarizing each Project Team member's responsibilities and roles.

The CM@Risk will add detail to its previous version of the CMP to keep it current throughout the design phase so that the CMP is ready for implementation at the start of the construction phase. The update/revisions will take into account: (a) revisions in

Drawings and Specifications; (b) the CM@Risk's examination of the results of any additional investigatory reports of subsurface conditions, drawings of physical conditions of existing surface and subsurface facilities and documents depicting underground utilities placement and physical conditions whether obtained by the City, Engineer or the CM@Risk; (c) unresolved permitting issues, and significant issues, if any, pertaining to the acquisition of land and right-of-way; (d) the fast-tracking of any of the construction or other chosen construction delivery methods; (e) the requisite number of separate bidding documents to be advertised; (f) the status of the procurement of long-lead time equipment, if any, and/or materials; and (g) funding issues identified by the City.

III- PROJECT SCHEDULE

The fundamental purpose of the "Project Schedule" is to identify, coordinate and record the tasks and activities to be performed by all of the Project Team members and then for the Project Team to utilize the schedule as a basis for managing and monitoring compliance by all Team members with the schedule requirements of the Project. Each Project Team member is responsible for its compliance with the schedule requirements of the Project. The CM@Risk will, however, develop and maintain the "Project Schedule" on behalf of and to be used by the Project Team based on input from the other Project Team members. The Project Schedule will be consistent with the most recent revised/updated CMP. The Project Schedule will use the Critical Path Method (CPM) technique unless the City by written notice requires a different method. The CM@Risk will use scheduling software to develop a Project Schedule that is acceptable to the City. The Project Schedule shall be presented in graphical and tabular reports as agreed upon by the Project Team. If Project phasing as described below is required, the Project Schedule will indicate milestone dates for the phases once determined. The Project Schedule's activities will directly correlate with the Schedule of Values specified in Section V.

The CM@Risk will include and integrate in the Project Schedule the services and activities required of the City, Engineer and CM@Risk including all construction phase activities. The Project Schedule will detail all activities to the extent required to show: (a) the coordination between conceptual design, preliminary design and development of the Construction Documents (detailed design); (b) any separate long-lead procurements; (c) permitting issues; (d) any land and right-of-way acquisition; (e) bid packaging strategy and awards to subcontractors and suppliers; (f) major stages of construction; (g) start-up and commissioning; and (h) occupancy of the completed Work by the City. The Project Schedule will include, but not be limited to, proposed activity sequences and durations for design, procurement, construction and testing activities, milestone dates for actions and decisions by the Project Team, preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead time procurement, if any, milestone dates for various construction phases, total float for all activities, relationships between the activities, City's occupancy requirements showing portions of

the Project having occupancy priority and proposed dates for Substantial Completion and when the Work would be ready for final acceptance.

The Project Schedule will be updated and maintained by the CM@Risk throughout the design phase such that it will not require major changes at the start of the construction phase to incorporate the CM@Risk's plan for the performance of the construction phase Work. The CM@Risk will provide updates and/or revisions to the Project Schedule for use by the Project Team, whenever required, but no less often than at the monthly Project Team meetings. The CM@Risk will include with such updates and/or revisions a narrative describing its analysis of the progress achieved to-date vs. that planned, any concerns regarding delays or potential delays and any recommendations regarding mitigating actions.

Project Phasing: If phased construction is deemed appropriate and the City and Engineer approve, the CM@Risk will review the design and make recommendations regarding the phased issuance of Construction Documents to facilitate phased construction of the Work with the objective of reducing the Project schedule and/or Cost of the Work. The CM@Risk will take into consideration factors such as natural and practical lines of work severability, sequencing effectiveness, access and availability constraints, total time for completion, construction market conditions, labor and materials availability and other factors pertinent to saving time and decreasing costs.

IV- DESIGN DOCUMENT REVIEWS

The CM@Risk will evaluate periodically the availability of labor, materials/equipment, building systems, cost-sensitive aspects of the design and other factors that may impact the Cost Model, GMP Proposals and/or the Project Schedule.

The CM@Risk will identify, in conjunction with the Project Team, those additional surface and subsurface investigations that are required to provide the necessary information for the CM@Risk to construct the Project. After completion of design phase services, the CM@Risk may provide additional investigations to improve the adequacy and completeness of the site condition information and the data made available with the Construction Documents. The CM@Risk will be responsible for the time and cost required to obtain such additional investigations, except if otherwise provided by specific Additional Services.

The CM@Risk will meet with the Project Team as required to review designs during their development. The CM@Risk will thoroughly familiarize itself with the evolving documents through conceptual design, preliminary design and development of the Construction Documents (detailed design). The CM@Risk will proactively advise the Project Team and make recommendations on factors related to construction costs and concerns pertaining to the feasibility and practicality of any proposed means and methods, selected materials, equipment and building systems and labor and material

availability. The CM@Risk will advise the Project Team on proposed site improvements, excavation and foundation considerations, as well as any concerns with respect to coordination of the Drawings and Specifications. The CM@Risk will recommend cost effective alternatives.

As necessary to satisfy the needs of the Project Team, the CM@Risk will routinely conduct constructability and biddability reviews of the Drawings and Specifications. The reviews will attempt to identify all discrepancies and inconsistencies in the Construction Documents, especially those related to clarity, consistency and coordination of Work of subcontractors and suppliers.

Constructability Reviews: The CM@Risk will evaluate whether: (a) the Drawings and Specifications are configured to enable efficient construction; (b) design elements are standardized; (c) construction efficiency is properly considered in the Drawings and Specifications; (d) module/pre-assembly design are prepared to facilitate fabrication, transport and installation; (e) the design promotes accessibility of personnel, material and equipment and facilitates construction under adverse weather conditions; (f) sequences of Work required by or inferable from the Drawings and Specifications are practicable; and (g) the design has taken into consideration efficiency issues concerning access and entrance to the site, laydown and storage of materials, staging of site facilities, construction parking and other similar pertinent issues.

Biddability Reviews: The CM@Risk will check cross-reference and complementary Drawings and sections within the Specifications, and in general evaluate whether: (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope of interpretation discrepancies; (b) named materials and equipment are commercially available and are performing well in similar installations; (c) the design provides as-built data; (d) specifications include alternatives in the event a requirement cannot be met in the field; and (e) the Project is likely to be subject to differing site conditions considering the data on subsurface conditions, physical conditions of existing surface and subsurface facilities and physical conditions of underground utilities made available by the design or resulting from conditions inherent to work similar to the Work.

The results of the reviews will be provided to the City in formal written reports clearly identifying all discovered discrepancies and inconsistencies in the Drawings and Specifications with notations and recommendations made on the Drawings, Specifications and other documents. If requested by the City, the CM@Risk will meet with the City and Engineer to discuss findings and review reports. The CM@Risk's reviews will be from a contractor's perspective, and though it will serve to reduce the number of Requests For Information (RFI's) and changes during the construction phase, responsibility for the Drawings and Specifications will remain with the Engineer and not the CM@Risk.

Notification of Variance or Deficiency : It is the CM@Risk's responsibility to assist the Engineer in ascertaining that the Construction Documents are in accordance with applicable laws, statutes, ordinances, building codes, rules and regulations. If the CM@Risk recognizes that portions of the Construction Documents are at variance with applicable laws, statutes, ordinances, building codes, rules or regulations, it will promptly notify the Engineer and City in writing describing the apparent variance or deficiency.

Alternate Systems Evaluations: The Project Team will routinely identify and evaluate, using value engineering principles, any alternate systems, approaches and/or design changes that have the potential to reduce Project costs while still delivering a quality and functional product. If the Project Team agrees, the CM@Risk in cooperation with the Engineer will perform a cost/benefit analysis of the alternatives and submit the analysis in writing to the Project Team. The project Team will decide which alternatives will be incorporated into the Project. The Engineer will have full responsibility for the incorporation of the alternatives into the Drawings and Specifications. The CM@Risk will include the cost of the alternatives in the Cost Model and any GMP Proposals.

V- COST MODEL, COST ESTIMATES AND SCHEDULE OF VALUES

- A. As soon as practical during the conceptual design phase, the CM@Risk will review all available information regarding the design and scope of the Project and other factors deemed pertinent by the CM@Risk. Based upon that review the CM@Risk will develop a Cost Model for review and approval by the City. Once approved by the City, the Cost Model will be continually updated and kept current as the design progresses to the design phase until a final GMP for the entire Project is established. The Cost Model will be the best representation of what the complete functional Project's construction costs will be. The CM@Risk will communicate in writing to the Project Team any assumptions made in preparing the Cost Model. The Cost Model will support the CM@Risk's construction cost estimates and may be broken down initially as dictated by the available information, but eventually must be broken down by Construction Standard Institute (CSI) Specification Divisions 1-16 and/or other breakdowns, as required by the City. The Cost Model will also include allowances as agreed to by the Project Team, including but not limited to: (a) construction cost contingency based on an agreed upon percentage of a total estimated construction cost; (b) allowances for potential additional quantities and/or additional Work that the City may require; and (c) any costs as required by the City.
- B. After receipt of the Engineer's most current documents from certain specified design phase milestones, the CM@Risk will provide a detailed written report to the Project Team regarding the impact of and changes to the Cost Model based on the CM@Risk's review of the design documents made available at the specified design phase milestone. The Engineer and the CM@Risk will reconcile any disagreements on the Cost Model to arrive at an agreed upon estimate for the

construction costs based on the scope of the Project through that specified design phase milestone. The design phase milestones applicable to this paragraph are: detailed design completion at 60%, 90% and 100%. If no consensus is reached, the City will make the final determination. If the Project Team requires additional updates of the Cost Model beyond that specified in this paragraph, the CM@Risk will provide the requested information in a timely manner.

- C. If at any point the Cost Model submitted to the City exceeds previously accepted estimates agreed to by the Project Team or other key aspects of the Cost Model or the City's Project Budget, the CM@Risk will make appropriate recommendations to the City and Engineer on means/methods, materials and/or other design elements that it believes will reduce the estimated construction costs (without altering the City's basic program) such that it is equal to or less than the established Project Team's target and/or the Project Budget.
- D. Near completion of the 90% detailed design review and included with the associated report, the CM@Risk will submit to the City for review and approval, a Schedule of Values which complies with the following requirements. The Schedule of Values will be based on the 16 CSI Divisions, and highlight significant variances from any previously submitted Schedule of Values. The Schedule of Values will be directly related to the breakdowns reflected in the Project Schedule and the CM@Risk's Cost Model. In addition, the Schedule of Values will: (a) detail unit prices and quantity take-offs; (b) segregate Work covered by any changes to construction phase Work already in progress; (c) reconcile used and remaining Contractor's contingency allowance; (d) detail all other allowances and unit price Work shown and specified in the detailed design documents; and (e) segregate unit costs, material and equipment costs, labor costs, General Conditions costs, hourly labor rates, payment for design services, and total cost. Labor costs in the Schedule of Values will include employee benefits, payroll taxes and other payroll burdens. The total cost for any portion of the Work to be performed by subcontractors will include subcontractor overhead and profit.

As required under paragraph V B, the CM@Risk will submit to the City a final Schedule of Values based on the one hundred percent (100%) detailed design set of Drawings and Specifications for the entire Project or any portion thereof, which final Schedule of Values will also be included in any proposed GMP(s).

Upon request by the City, the CM@Risk will submit to the City a cash flow projection for the Project based on the current updated/revised Project Schedule and the anticipated level of payments for the CM@Risk during the design and construction phases. In addition, if requested by the City and based on information provided by the City, the CM@Risk will prepare a cash flow projection for the entire Project based on historical records for similar types of projects to assist the City in the financing process.

VI- GUARANTEED MAXIMUM PRICE (GMP) PROPOSALS

The proposed GMP for the entire Work (or portions thereof) will be presented in a format acceptable to the City and consistent with the City's request for GMP Proposal. The City may request a GMP Proposal for all or any portion of the Project and at any time during the design phase. Any GMP Proposals submitted by the CM@Risk will be based on and consistent with the current updated/revised Cost Model at the time of the request, the associated estimates for construction costs and include any clarifications or assumptions upon which the GMP Proposal(s) are based.

GMP Proposals for the entire Project will be the sum of the maximum Cost of the Work and include the CM@Risk's Construction Fee, General Conditions Fee and Contractor's Contingency. The CM@Risk guarantees to complete the Project at or less than the final approved GMP Proposal, defined as the contract Amount for the construction phase contract, and agrees that it will be solely responsible for any difference between the actual Cost of the Work and the Contract Amount.

The CM@Risk, in preparing any GMP Proposal, will obtain from the Engineer three sets of signed, sealed and dated Construction Documents (including all addenda). The CM@Risk will prepare its GMP Proposal requirements based on the most current completed Construction Documents at that time. The CM@Risk will send one set of those documents to the City's Project Manager, keep one set and return the third set to the Engineer.

An updated/revised Project Schedule will be included with any GMP Proposal that reflects the scope of Work shown in the current set of design documents upon which the GMP Proposal is based. Any such Project Schedule updates/revisions will continue to comply with the requirements of section III.

In the event the CM@Risk elects to maintain a Construction Contingency allowance within the GMP, the criteria for development of that allowance must be acceptable to the City. In addition, the terms and conditions regarding use of that allowance during the construction phase will be established by the City and reflected in the contract for that phase of the Project.

The CM@Risk's Construction Fee is set at /% of the combined total of the Cost of the Work, General Conditions (General Expense Costs) and Contractor's Contingency.

VII- REVIEW AND APPROVAL OF GMP PROPOSAL(S)

The CM@Risk will meet with the City and Engineer to review any GMP Proposal and the written statement of its basis. In the event the City or Engineer discovers inconsistencies or inaccuracies in the information presented, the CM@Risk will make adjustments as necessary to the GMP Proposal, its basis, or both.

Upon receipt of any GMP proposal from the CM@Risk, the City may submit the same documents that were used by the CM@Risk in developing the GMP to an independent third party or to the Engineer for review and verification. The third party or Engineer will develop an independent estimate of the Cost of the Work and review the Project Schedule for the associated scope of the GMP Proposal.

If the CM@Risk GMP Proposal is greater than the independent third party or Engineer's estimate, the City may require the CM@Risk to reconfirm the GMP Proposal. The CM@Risk will accept the independent third party's or Engineer's estimate for the Cost of Work as part of the GMP or present a report to the City within seven days of a written request by the City identifying, explaining and substantiating the differences. The CM@Risk may be requested to submit a revised GMP Proposal for consideration by the City. At that time the City may do one of the following.

- (A) Accept the CM@Risk GMP Proposal, if within the City's budget.
- (B) Accept the CM@Risk GMP Proposal that exceeds the City's budget and agree to increase the Project Budget to fund the differences.
- (C) Reject the CM@Risk's GMP Proposal because it exceeds the City's budget or the independent third party's estimate or Engineer's estimate. The City may terminate this Design Phase Contract or elect not to enter into a contract with the CM@Risk for the construction phase of this project.
- (D) Take other actions deemed appropriate by the City.

If during the review and negotiation of GMP Proposals, design changes are required and agreed upon, the City will authorize and cause the Engineer to revise the Construction Documents to the extent necessary to reflect the agreed upon assumptions and clarifications contained in the final approved GMP Proposal. Such revised Construction Documents will be furnished to the CM@Risk. The CM@Risk will promptly notify the Engineer and City if any such revised Construction Documents are inconsistent with the agreed upon assumptions and clarifications.

VIII- SUBCONTRACTOR AND SUPPLIER SELECTIONS

The CM@Risk will develop subcontractor interest, submit the names of a minimum of three qualified subcontractors for each trade in the Project for approval by the City and solicit bids for the various Work categories. If there are not three qualified subcontractors available for a specific trade or there are extenuating circumstances warranting such, the CM@Risk may request approval by the City to submit less than

three names. Without prior written approval by the City, no change in the City-approved subcontractors will be allowed.

If the City objects to any nominated subcontractor or supplier or to any Self-Performed Work for good reason, the CM@Risk will nominate a substitute subcontractor or supplier.

All subcontractors doing work in excess of \$30,000.00 will maintain, during the course of the construction contract, health insurance for all employees working on this project and will offer health insurance coverage to eligible dependents of such employees as required by the City of Tempe Guidelines for Implementation of Health Insurance, and Resolution No. 2000.73.

The CM@Risk will distribute Drawings and Specifications, and when appropriate, conduct a prebid conference with prospective subcontractors.

If the CM@Risk desires to self-perform certain portions of the Work, it will request to be one of the approved bidders for those specific bid packages. If the CM@Risk is approved as a subcontractor and submits the lowest responsive bid, then the CM@Risk may self-perform those portions(s) of the Work. If events warrant and the City concurs, the CM@Risk may self-perform Work in order to insure compliance with the Project Schedule and/or GMP(s).

The City, at the required time, will close the bidding and collect all bids received within the prescribed deadline for receipt of bids. The bids will be read aloud in a public opening at a location agreed upon by the City. The CM@Risk will submit a completed bid tabulation form to the City within a reasonable time after the closing of the bid opening proceedings.

If after receipt of bids or after award of subcontractors or suppliers, the City objects to any nominated subcontractor or supplier or to any self-performed Work for good cause, the CM@Risk will nominate a substitute subcontractor or supplier, preferably if such option is still available, from those who submitted bids for the Work identified. Once such substitute subcontractors and suppliers are consented to by the City, the CM@Risk's proposed GMP for the Work or portion thereof will be correspondingly adjusted to reflect any higher or lower costs from any such substitution.

The CM@Risk, upon opening of bids for subcontractors will evaluate them including, but not limited to, the evaluation of lower tier subcontractors, subcontractor qualification submittals and prospective suppliers selected by each apparent low bidder. The CM@Risk will resolve any bid withdrawal, protest or disqualification in connection with the award at no increase in the Cost of the Work.

Within fifteen Days after subcontractor bid opening, the CM@Risk will deliver to the City a written Notice of Intent to Award, itemizing the subcontractors and suppliers selected by the CM@Risk. The Notice of Intent to Award will detail: (a) for each subcontractor agreement, the amount of the bid and the corresponding subcontractor or supplier; (b) the sum of bids received for all intended subcontractor agreements; and (c) trade work that the CM@Risk intends to self-perform, if any.

Promptly after receipt of the Notice of Intent to Award, the City will conduct a pre-award conference with the CM@Risk and other Project Team members. At the pre-award conference, the CM@Risk will: (a) review the nominated state of subcontractors and suppliers and discuss the City's objections to any nominated subcontractor or supplier; (b) discuss City concerns relating to any proposed self-performed Work; (c) review the CM@Risk's proposed Contract Price for the Work during the construction phase; (d) discuss the conditions, if any, under which the City will agree to leave any portion of the remaining Contingency Allowance within the Contract Price for the construction phase Work; (e) resolve possible scheduling issues with the Date of Commencement of the Contract time for the construction phase Work; (f) schedule the design conference; and (g) discuss other matters as needed.